



# An Evaluation of Talent Attraction Indicators in Yiwu Based on the Entropy Weight Method and Strategic Recommendations

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**Abstract:** This study focuses on Yiwu City and constructs an evaluation system for talent attraction based on urban amenity theory and the entropy weight method. Through empirical analysis of relevant data from Yiwu, the study examines the current status and challenges in attracting talent and proposes corresponding strategic recommendations. The findings reveal that economic potential, living costs, and government policy support are critical factors influencing Yiwu's talent attraction capabilities. The results of this study provide a scientific basis for enhancing Yiwu's talent attraction efforts and offer new insights for other county-level cities aiming to improve their talent attraction strategies.

**Keywords:** Yiwu City; talent attraction; urban amenity theory; evaluation indicators

## 1. Background of Talent Attraction in Yiwu City

As a significant county-level city in Zhejiang Province, Yiwu faces considerable opportunities and challenges in terms of talent attraction. Yiwu is renowned for its robust market economy and innovative vitality. In recent years, the municipal government has actively responded to central policies by implementing a series of talent introduction and cultivation measures. However, according to data from 2023, Yiwu's talent attraction still lags behind cities such as Hangzhou and Ningbo within Zhejiang Province. To address this issue, Yiwu must accurately position itself, leverage its market and international trade advantages, and implement precise policies to enhance the city's appeal to high-level talents[1].

The Yiwu municipal government has already taken several measures, such as hosting the China Yiwu E-commerce Talent Festival and introducing talent housing subsidy policies, to attract and retain various types of talent. Nevertheless, in the face of fierce competition from nearby cities like Hangzhou and Ningbo, Yiwu needs to further optimize its talent development environment, improve the quality of life, and provide more opportunities for innovation and entrepreneurship to counter the "siphoning effect" of larger cities.

This study aims to construct a scientific evaluation indicator system, quantitatively analyze the current status of Yiwu's talent attraction, and propose targeted strategic recommendations. These efforts will help Yiwu stand out in the intense talent competition and achieve sustained urban innovation and development.

## 2. Fundamental Theoretical Research

### 2.1 Urban Amenity Theory

Urban Amenity Theory posits that a city's attractiveness depends not only on economic factors but also on aspects such as quality of life[2], environment, and policies. This theory, proposed by Canadian economist Richard Florida[3], suggests that highly skilled talent tends to choose cities with high living standards, beautiful environments, and favorable policies for residence and work. Research by various scholars has validated that high-quality talent also demands higher living standards, underscoring the reliability of using Urban Amenity Theory to study talent aggregation. The main components of urban amenity include:

**Economic Development Level:** High income levels and ample job opportunities are crucial factors in attracting talent. The more developed the economy of a city, the higher the employment opportunities and salary levels, which can offer more development space and career prospects.

**Cost of Living:** The cost of living includes daily expenses such as housing, transportation, food, and healthcare. Reasonable living costs can enhance a city's attractiveness to talent, particularly for young professionals and startup enterprises.

**Environmental Quality:** Environmental quality encompasses air quality, green space area, water quality, etc. High environmental quality can increase residents' life satisfaction and attract more highly skilled talent to settle.

Socio-Cultural Environment: Education, healthcare, cultural and entertainment facilities, and public safety constitute a city's socio-cultural environment. A well-rounded socio-cultural environment can offer a rich living experience, enhancing the sense of belonging and satisfaction among talent.

Policy Support: Government policy support, including tax incentives, entrepreneurship support, and talent introduction programs, can effectively attract and retain high-quality talent.

## 2.2 Entropy Weight Method

The Entropy Weight Method is a commonly used objective weighting technique that determines the weight of each indicator by calculating its information entropy. Information entropy, originally proposed by American mathematician Shannon in information theory, measures the uncertainty of information. According to the basic principles of information theory, information is a measure of the orderliness of a system, while entropy measures the disorderliness of a system. If the information entropy of an indicator is smaller, indicating a higher degree of dispersion, the information provided by that indicator is less significant, and its weight in the comprehensive evaluation should be lower[4]. Therefore, the entropy weight method can be utilized to calculate the weight of each indicator, providing a basis for multi-indicator comprehensive evaluation.

## 3. Data Collection of Indicators

The data utilized in this study primarily originate from urban statistical yearbooks, with additional data sourced from relevant reports by city governments. By referencing a substantial body of literature and incorporating government documents and societal knowledge, five primary indicators and fifteen secondary indicators were selected to form an evaluation system. The primary indicators include economic potential, living standards, urban construction, cultural and healthcare levels, and government policies. The evaluation system is detailed in Table 1.

Table 1. Framework of Talent Attraction Indicators for Yiwu City

Primary Indicators	Secondary Indicators
Economic Potential	GDP, Per Capita Disposable Income, Employment Rate
Living Costs	Housing Prices, Living Expenses, Consumption Index
Urban Construction	Infrastructure, Transportation Convenience, Green Coverage
Cultural and Healthcare Levels	Medical Facilities, Educational Resources, Cultural Activities
Government Policies	Talent Policies, Tax Incentives, Government Services

## 4. Calculation Using the Entropy Weight Method

To evaluate the comprehensive value of talent attraction across different cities, the entropy weight method is employed to assign objective weights to various indicators. By calculating entropy values, we can determine the dispersion of each indicator; the smaller the entropy value, the greater the dispersion of the indicator, and thus the larger its influence on the overall evaluation, resulting in a higher weight. The basic steps are as follows: first, normalize the indicator data; then, calculate the proportion of each indicator; compute the information entropy of each indicator based on its proportion; and finally, determine the weight of each indicator using the difference coefficient. The weights derived from these steps are shown in Table 2.

Table 2. Weights of Talent Attraction Evaluation Indicators for Yiwu City

Primary Indicators	Secondary Indicators	Weight
Economic Potential	GDP	0.030
	Per Capita Disposable Income	0.105
	Employment Rate	0.113
Living Costs	Housing Prices	0.094
	Living Expenses	0.083
	Consumption Index	0.075
Urban Construction	Infrastructure	0.056
	Transportation Convenience	0.045
	Green Coverage	0.068

Primary Indicators	Secondary Indicators	Weight
Cultural and Healthcare Levels	Medical Facilities	0.113
	Educational Resources	0.094
	Cultural Activities	0.120
Government Policies	Talent Policies	0.131
	Tax Incentives	0.038
	Government Services	0.045

From the overall distribution of weights, it is evident that government policies, cultural activities, and medical facilities significantly impact Yiwu City's talent attraction. Notably, talent policies, with a weight of 0.131, emerge as the most critical single indicator, highlighting the crucial role of effective government talent policies. Similarly, within the economic potential category, employment rate and per capita disposable income also exhibit high importance, underscoring the significant influence of economic conditions on talent attraction. In contrast, indicators such as GDP, infrastructure, and transportation convenience have lower weights, indicating that while these factors are important, their contribution to talent attraction in the current evaluation system is relatively minor.

## 5. Conclusions and Recommendations

### 5.1 Reduce Living Costs and Control Housing Prices

Given the significant weight of living costs in the talent attraction framework, it is imperative for the Yiwu government to address the high cost of living, particularly average housing prices[5]. Elevated housing costs and living expenses impose a substantial financial burden on potential new residents, especially young talent. High housing prices can deter young professionals from settling in Yiwu[6]. Therefore, the government should implement measures to control rapid housing price increases, relax residency requirements, lower the threshold for home purchases, and provide housing benefits to young professionals to reduce their cost of living in the city.

### 5.2 Introduce High-Tech Industries and Accelerate Economic Development

When economic potential indicators hold substantial weight, the Yiwu government must focus on the questions of "what attracts talent" and "where to employ talent." During a visit to Zhejiang in September of last year, President Xi Jinping outlined the "4+1" key requirements, with the foremost being for Zhejiang to "lead in creating new advantages through technological innovation." To attract high-quality young talent, Yiwu needs to establish a robust high-tech industrial cluster that not only attracts talent but also retains it. Yiwu should leverage strategic opportunities in developing new productive forces, utilizing the advantages of the "Eight-Eight Strategy," and accelerating the development of new technologies, industries, and models. This involves building a modern industrial system and promoting steady and rapid economic growth. Industries with significant appeal for employment and living should be developed; new research institutions, universities, and research institutes should be established to expand the influence of the "knowledge circle" and provide a diverse array of employment options for young talent.

### 5.3 Enhance Government Policy Support and Provide Resource Service Inclination

Given the high weight of government policy and public service indicators, the Yiwu government must consider how to formulate competitive talent policies compared to neighboring cities. It is recommended that the government, in drafting youth talent plans, tailor these to the specific characteristics of different types of young professionals[7]. For instance, Yiwu has recently offered the same benefits to e-commerce professionals with annual incomes exceeding 800,000 yuan for three consecutive years as to those with senior technical titles and doctoral degrees. For young researchers, the government should provide technical support, project funding, and rewards for successful results to overcome information and resource disparities, establish platforms for enterprise connections, and create better research conditions to facilitate the collaboration between academia and industry. Given that Zhejiang's private economy is its most distinctive and significant advantage, Yiwu should continue to deepen reforms, expand openness, and harness the role of private entrepreneurs in social and economic development, talent absorption, and job provision. The government should consistently implement the "32 Measures for High-Quality Development of the Private Economy" and other policies, actively address the needs and challenges of entrepreneurial talent, and foster an entrepreneur-friendly city environment.

### 5.4 Improve Cultural and Recreational Facilities

Given the significant weight of cultural and recreational facilities in attracting talent, the Yiwu government should

focus on enhancing the city's cultural and recreational environment. Cultural activities, educational resources, and healthcare facilities are crucial for attracting and retaining talent, particularly those with families. To this end, Yiwu should invest in the development of cultural infrastructure, such as museums, theaters, and art galleries, and organize a variety of cultural events and festivals to enrich the cultural life of its residents. Additionally, improving educational facilities by establishing new schools and enhancing the quality of existing ones can make the city more attractive to young professionals with children. Similarly, expanding and modernizing healthcare services ensures that residents have access to high-quality medical care, which is a significant factor in the decision-making process for talent considering relocation. These enhancements not only improve the quality of life for current residents but also make Yiwu a more attractive destination for potential new talent.

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